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EXAMINER

SALAD, ABDULLAHI ELMI

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/086,821	Applicant(s) LARA ET AL.	
	Examiner Salad Abdullahi	Art Unit 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-16,25 and 34-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6-16, 25, and 34-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response

1. The response filed on 7/17/2008 has been received and made of record.
2. applicant's argument with respect to claims 1-, 6-16, 25, and 34-39 have been fully considered but are not persuasive for the following reason.

Applicant alleges" Hu fails to disclose or suggest the recited features of "after receiving, determining whether a predetermined condition exists at the first web server," and redirecting the web page request as required by claim 1. The addition of Logue fails to cure the deficiencies of Hu, nor is Logue alleged to. Thus, the rejection should be withdrawn for at least these reasons".

Examiner respectfully disagrees. As shown in FIG. 9A and 9b is a diagram 900 illustrating network request manager 102 (in a proxy mode of operation or redirect mode) receives a client request from client 104. In proxy mode, network request manager 102 selects an appropriate content server 106 and forwards the client request on to the selected content server 106. Content server 106 services the client request and returns the results to network request manager 102. Network request manager then passes the results on to client 104. Thus, network request manager 102 acts as a proxy for client 104 when servicing the client request with content server 106. It appears to client 104 that network request manager 102 has serviced the client request: the proxy operation is invisible to client 104. In a preferred embodiment, proxy module 210 handles most failures of a content server 106 without disruption to client 104. If the failed content server was the last in the selected group, network request manager 102 might report the failure to client 104, with instructions to try again at a later time.

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However, in a preferred embodiment, proxy module 210 under these circumstances forwards the client request to a default content server 106. The default content server 106 services client requests from any proxy module 210 which was unable to provide a content server 106l to service the request.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6-16, 25, and 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hu U.S. Patent No. 6,173,322[hereinafter Hu] in view of Logue U.S. Patent No. 5,935,207[herein after Logue].

As per claims 1 and 37, Hu discloses a method for distributing browser web page requests among two or more servers, comprising:

receiving web page request at a first web server of plurality of web servers, the first web server assigned (i.e., selected) to service the request by an interceptor operable to allocate web requests among the plurality (see fig. 3 and col. 5, lines 29-33 and col. 13, lines 10-21);

after receiving, determine whether a predetermined condition exist at the first web server (i.e. failed or overloaded)(see col. 15, lines 11-16); and

HU is silent regarding:

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redirecting by the first server web server the web page request from the first web server to another web servers of the plurality for servicing.

Logue discloses a methods for load rebalancing for clients (client 1) requests in a network with plurality of servers (proxy server 405) including redirecting by the first server web server the web page request from the first web server to another web servers of the plurality for servicing (see figs. 9, 10 and col. 10, lines 15-57). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention presented with teaching Hu to incorporate the load balancing mechanism as suggested by Logue, by initially mapping each URL to only one server, and then redirecting the request to appropriate server. Advantageously this approach more efficiently allocates the proxy's cache space by avoiding unnecessary redundancy. In this manner, the load required to support a popular document can be shared among a group of proxy servers.

In considering claim 6, Hu discloses the method of claim 1 wherein the determining comprises monitoring the system load of the host server (see col. 15, lines 1-16).

In considering claim 7, Hu discloses the method of claim 1 wherein the predetermined condition comprises a CPU utilization or memory or failure etc (see col. 9, lines 19-46).

In considering claim 8 Hu discloses the method of claim 1 wherein the predetermined condition comprises a CPU utilization or memory or failure etc (see col. 9, lines 19-46).

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In considering claim 9, HU discloses the method of claim 1, wherein the redirecting step comprises redirecting only if the request is for one of a predetermined set of web pages (i.e., dynamic pages or static pages) (see fig. 6 and col. 12, lines 10-42).

In considering claim 10, Hu discloses the method of claim 9, wherein the predetermined set is predetermined by list of web pages included in the web page included in the set (see fig. 6, and col.12, lines 18-66).

In considering claim 11, Hu discloses the method of claim 9, wherein the predetermined set is predetermined by a list of web pages excluded from the set (see col. 12, lines 10-42).

In considering claim 12 , the claim features similar with features in claim 1, discussed above further reciting: wherein the redirecting step comprises redirecting only if the request is for web page that does not have state (i.e., web pages not cached) (see Hu fig. 6, and col. 12, lines 10-42 and col. 13, lines 1-21).

In considering claim 13, Hu discloses the method of claim 12, wherein the redirecting step comprises:

determining whether the web page is included in a list of web pages that have state (i.e., list of cached web pages) (see fig. 6, and col. 12, lines 10-42).

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In considering claim 14, Hu discloses the method of claim 1, wherein the predetermined condition comprises failure (see col. 11, lines 60-65 and col. 12, lines 10-42).

As per claim 15, Hu discloses a system for servicing browser web pages requests, comprising:

a first web server operable to redirect from the first web server to a second web server a web page request made of the first web server if a predetermined condition is determined to exist the first web servers (see fig. 2 and col. 5, lines 520-54 and col. 15, lines 11-16); and

a manager for monitoring the first web server to determine if the predetermined condition exists at the first web server and for monitoring the second web server to determine capacity for serving the redirected web page request(see col. 6, lines 11-22 and col. 4, line 66 to col. 5, line 8).

HU is silent regarding:

redirecting by the first server web server the web page request from the first web server to another web servers of the plurality for servicing.

Logue discloses a methods for load rebalancing for clients (client 1) requests in a network with plurality of servers (proxy server 405) including redirecting by the first server web server the web page request from the first web server to another web servers of the plurality for servicing (see figs. 9, 10 and col. 10, lines 15-57). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention presented with teaching Hu to incorporate the load balancing mechanism as

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suggested by Logue, by initially mapping each URL to only one server, and then redirecting the request to appropriate server. Advantageously this approach more efficiently allocates the proxy's cache space by avoiding unnecessary redundancy. In this manner, the load required to support a popular document can be shared among a group of proxy servers.

In considering claim 16, Hu discloses the system of claim 15, wherein the web server is operable to transfer only for predetermined web pages (see fig. 6 and col. 12, lines 10-42).

In considering claim 25, Hu discloses a method of claim 20 wherein distributing is accomplished by an interceptor located on a first host, and redirecting is initiated by an agent (redirection module 212) running on a second host which also hosts the first web server, and wherein the agent is in communication with web server interface and instructs the web server interface to cause the web server to redirect (see col. 5, lines 20-54).

As per claims 34-36 Wolff discloses the method of claim 1, wherein the agent is in communication with the first web server through a web server interface, and instructs the first web server to redirect using commands given through the web server interface(see figs. 6, 7A and col. 15, lines 15-42).

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As per claim 38, Logue the method of claim 1, wherein determining whether a predetermined condition exists at the first web server is performed in response to receiving the web request at the first web server (see figs 9-10 and col. 10, lines 15-57).

In considering claim 39 Hu, discloses wherein the redirecting step comprises redirecting only if the request is for web page that does not have state (i.e., web pages not cached) (see Hu fig. 6, and col. 12, lines 10-42 and col. 13, lines 1-21).

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

CONCLUSION

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salad E. Abdullahi whose telephone number is 571-272-4009. The examiner can normally be reached on 8:30 - 5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this

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application or proceeding is assigned is **571-273-8300**. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

//Salad Abdullahi/

Primary Examiner, Art Unit 2457

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In an alternative embodiment, a decentralized dispatching scheme can be implemented. For example, the proxy servers 405 may be arranged to form an interconnected ring configuration and the functionality of the dispatcher 910 may be incorporated into each proxy server 405. In this embodiment, the client document requests may be initially handled by one of the proxy servers 405 in the ring. If the requested document is not found in the local cache of the initial proxy server, the initial proxy server may forward the request to the appropriate proxy server based on the hashing scheme discussed above.

However, in a decentralized dispatching environment, the initial proxy server receiving the client request may assume it is the appropriate proxy server and first check its local document cache 465. If the document is not present, then proxy server may perform the hash algorithm on the URL to determine which of the remaining proxy servers is appropriate for the request (step 1020).

Since each URL will map to only one proxy server 405, advantageously this approach more efficiently allocates the proxy's cache space by avoiding unnecessary redundancy. In this manner, the load required to support a popular document can be shared among a group of proxy servers.